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THE REPORT

ADDRESSED TO THE

BARNESLEY LOCAL BOARD OF HEALTH

IN FEBRUARY, 1869,

BY

MICHAEL THOMAS SADLER, JUNR.,

B.A., and M.D. Lond., &c.,

MEDICAL OFFICER OF HEALTH.

PRINTED FOR CIRCULATION BY ORDER OF
THE LOCAL BOARD OF HEALTH.

BARNESLEY:
T. LINGARD, PRINTER, "CHRONICLE" OFFICE
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1869.

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ANALYSIS OF THE CAUSES OF DEATH AND AGES AT DEATH IN THE TOWNSHIP OF BARNSLEY IN THE YEAR 1868.

DISEASES.	Under 1 yr.	1-2	2-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90- Totals.
Measles	1	2											3
Scarlet Fever.....	1												10
Whooping Cough	1	3	6	2	1								7
Small Pox	1		1										1
Fever		2			4	4	3	5					20
Puerperal Fever								1					1
Diarrhoea	43	7						2		1		1	54
Malignant Sore Throat		2											2
Erysipelas	4					1			1			1	4
Rheumatism													3
Syphilis	1					1							2
Dropsy, Cancer, &c....		1						3		3	7		17
Tubercular Diseases ...											2		107
Dis. of Nervous System	29	11	10	3	13	13	12	7	7	2			71
Respiratory Orgn.	33	5	5	2	2	2	4	3	3	5	7	2	59
" Circulatory "	12	9	4	2	1	4	2	2	7	8	6		36
" Digestive "		2		1		1	7	7	6		1		16
" Urinary "	6					2	1	3	2		1		4
" Integumentary "		1							1				2
Congenital Debility and Premature Birth ...	20									2	12	4	20
Old age						2	1	2					19
Childbirth													5
Accident and Violence	3	2		2	7	3	8	2	1			1	29
	157	47	28	13	28	33	38	37	31	34	36	8	492

MONTHLY TABLE OF TEMPERATURE AND RAINFALL
AT BARNSLEY IN 1868.

	TEMPERATURE.				DAYS OF FROST.		RAINFALL.	
	Mean	Highest	Lowest	Range		Days rain fell	Amnt in inches	
January	41	54	28	26	8	26	3.06	
February.....	42.5	54	31	23	2	16	1.17	
March.....	45	59	31	28	2	18	1.69	
April.....	46.5	62	31	31	2	16	2.11	
May.....	59	80	38	42		13	.86	
June.....	64.5	83	46	37		6	.62	
July	69	89	49	40		5	.41	
August....	68	89	47	41		16	2.97	
September	63.5	83	44	39		14	2.92	
October	47.5	60	35	25		22	2.42	
November	46	63	29	34	5	20	1.34	
December	42.5	65	30	25	2	28	7.30	
Totals.....					21	200	26.87	

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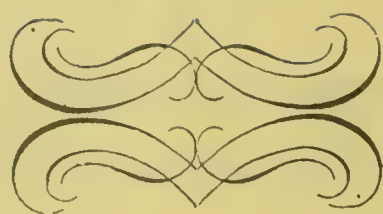
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MEDICAL OFFICER'S REPORT.

"To the Local Board of Health, Barnsley.

"GENTLEMEN,—

"The year 1868 was remarkable for a high average of temperature throughout the year, amounting to extreme heat in parts of the months of May, June, July, August, and September, and combined with great deficiency of rainfall in May, June, and July.

"The total amount of rain falling at Barnsley in the year was within an inch (or 100 tons per acre) of that which fell in 1867, and the number of days on which rain fell was within five of the same number in each year, but whilst in 1867 a quarter of the whole rainfall of the year descended in the months of May, June, and July, in 1868 not one thirteenth fell in those months, or in other words, there was about four times as much rain in the summer of 1867 as in that of 1868 (1·89 inches against 7·43). The deficiency was made up in December, in which month, last year, we had more than a quarter of our whole rainfall against about one-eighteenth in 1867.

"The number of days on which there was frost was 21 last year, and 50 in 1867.

"The effect of this high average temperature on the health of the town does not on the whole appear to have been unfavourable, there having been 492 deaths during the year 1868 against 487 in 1867, which year was distinguished by the lowest mortality per thousand known in any one year since the institution of your Board.

"It is true that there were 20 more deaths from diarrhoea, all children under one year and all in the summer months; but, on the other hand, there were 20 infants fewer who died from diseases of the nervous system in 1868 than in 1867, so that we may probably draw the conclusion that those who died from diarrhoea last summer were for the most part delicate or ill-nourished children who would very shortly have succumbed to some other diseases if they had escaped diarrhoea. Diseases of the respiratory organs were also decidedly less fatal, having caused 59 deaths instead of 73, and this was especially the case amongst children under five, of whom 25 died from that class of complaint instead of 42 as in 1867. On the other hand, diseases of the tubercular class and of the heart and circulatory system were rather more fatal last year than in the year before, 107 having to be placed under the former head and 36 under the latter, against 93 and 27 respectively in 1867. Diseases of the zymotic class, after excluding diarrhoea, were as nearly as possible equally fatal in the two years, 51 deaths in 1868 against 50 in 1867. Measles were less fatal, only 3 having died from it against 13 the year before. Scarlet fever carried off 10, instead of 5 in 1867; whooping cough, 7. Fever was about as fatal as in the previous year, 20 deaths in 1868 and 21 in 1867. There was one death from small pox, an unvaccinated child. Diarrhoea carried off 54, of whom 50 were under one year, and all the deaths were in the second and third or summer quarters. Accident and violence caused 29 deaths during the year. I have prefixed to my report carefully prepared tables, which will give more minute information both as to the cause of death and as to the temperature and rainfall of the year.

"Of the deaths during the year 24 occurred in the Union Workhouse, and as the population of the Union from which the inmates are drawn is more than double that of Barnsley, only about half of the number can be fairly charged to the town, leaving 481, which, on a

population of 20,000, gives as the rate for last year almost exactly 24 per thousand. That this estimate of our population is within the mark is proved by the large proportion of births, viz., 853, or $4\frac{1}{4}$ per cent. on a population of 20,000, the average for England and Wales being $3\frac{1}{2}$ per cent. The rate of mortality for England and Wales last year was about 22 per thousand; that of the chief towns, 24 per thousand; and that of the country districts, 19 per thousand.

“The rate of mortality varied at different parts of the year from 20 per thousand in the first quarter up to 30 per thousand in the third or hottest quarter, whilst during the last three months it did not quite reach 24 per thousand, which was that of the town districts of England during the same period, and is more favourable than that of all the great city districts, Bristol and Birmingham alone excepted; but it is much higher than the country districts, which did not quite reach 19 per thousand.

“This higher death-rate in towns, as I have had occasion to remark, is, at least in part, due to the mortality amongst young infants, which seems to be in all countries inseparable from the employment in factories and other similar establishments of nursing mothers.

“To this cause is probably due also in great measure the high rate of mortality from diarrhoea during the last summer in the large manufacturing towns in the northern and midland counties as compared with London and the south of England, to which the Registrar General lately called attention, and which he attributes to bad sanitary arrangements. Women employed for ten hours a day in factories cannot provide their young infants with their natural food at proper intervals or of a healthy quality; they must have recourse to artificial feeding. This is seldom judiciously managed, and the result is constant derangement of the digestive organs, ever ready to run on into diarrhoea when the atmospheric conditions are favourable to the propagation of that disease.

“ I notice with regret that fever seems to be rather on the increase in the town, 8 out of the 20 deaths, having occurred during the last quarter. Scarlatina, too, has been more fatal during the latter part of the year, and the deaths, 10 in number, from this disease are by no means an adequate measure of the prevalence of the complaint. It is well known that these and other infectious diseases are often introduced into fresh districts previously free by persons travelling in search of work sleeping in crowded rooms in small, ill-ventilated houses, which too frequently serve as centres of infection, from which disease spreads into the habitations of all classes. Having reason to fear that the common lodging-houses in Barnsley are somewhat over crowded, I thought it my duty about ten days ago to pay them a midnight visit in company with Mr. Savage and Mr. Sergeant Greenwood. We inspected 5 registered lodging-houses and about 6 other houses taking lodgers but not registered. Almost all the registered houses were full, and in some cases had even more than the number to which they were entitled. In almost every room the air was excessively foul, even at that early hour, and what it would have been by morning it is impossible to imagine, as every crevice by which fresh air could enter was carefully stopped. The unregistered houses were even worse,—in one room, barely large enough for two persons, we found seven, two married couples and three children. I find that the allotted space in the lodging houses here is at the rate of 250 feet per adult inmate. That this allowance is too scanty is evident from the fact that careful experiments and calculations show that every adult human being in 9 hours, the length of an average sleeping night, renders absolutely poisonous, by the carbonic acid gas exhaled from his lungs, 270 cubic feet of air. I have made enquiries of the medical officers of health in several of the large towns of Lancashire and Yorkshire, and find that at Leeds, Manchester, Liverpool, and Birkenhead, they require 300 cubic feet of air for each adult inmate, and at Salford 400 is

the number insisted on. The Poor Law Board also requires 300 feet of space, or a trifle more than 6 feet in length and breadth by 8 in height, for each person in a room occupied by night only, and 500 when the room is occupied both by night and day. Under these circumstances, I feel it right to recommend your Board to order a revision of the registration of lodging-houses in Barnsley, allowing for the future only one adult or two children under 14 years of age for each 300 cubic feet of space. Even this is, I admit, a scanty allowance for health; but I fear that at present it is not practically possible to enforce more. The demand for lodgings is now so much greater than the supply, that I am informed that the police find it necessary occasionally to allow persons to pass the night in the parade-room of the police-station, to save them from wandering about the streets all night, and a considerable number of unregistered persons are in the habit of depriving themselves and their families of the scanty sleeping accommodation they possess, in order to take in lodgers. This is just the state of things in which epidemics of fever are apt to originate, and I would suggest to philanthropic persons that there is an excellent opportunity here for benefiting the poorest classes directly, and the whole town indirectly, by the introduction of model lodging-houses, affording sufficient air space, decent accommodation, and proper supervision, with separation of the sick from the healthy, at a price within the reach of the poorest; and if this can be done, as with care and economy it probably might, so as to secure a fair return for the outlay, it would be all the more useful because then the example would be more likely to be followed and would have a greater effect on the other lodging-houses.

“There is another subject on which I must say a few words. I have, several times during the past year, been called upon to inspect ashpits, which were complained of as dangerous nuisances to those living near them, and I have generally found the same state of things, namely,

the presence of a considerable quantity of water, giving rise to rapid decomposition and offensive odours, and rendering it difficult, if not impossible, to clean the place out effectually in the ordinary manner. Of course, an efficient drain is one remedy, but drains often get out of repair, and at best only carry the nuisance off into the sewer or elsewhere. If the water was kept out of the ashpits, if they were roofed over and no rainfall allowed to drain into them, the coal ashes thrown in daily would alone, by their deodorising properties, keep them in a proper sanitary condition, especially if the ashpits were so built that each day's ashes, when thrown in, should at once cover everything else that there was there, according to the plan used at Nottingham, the drawings of which I laid before your Board last July, or according to a similar method which I understand is now adopted at Salford. The presence of a certain amount of moisture is necessary for decomposition, and, therefore, for offensiveness. Cinders from coal fires are naturally porous and absorbent as well as deodorising in their properties, and if they had fair play would be one of the most valuable, because most constantly available, of disinfectants. It is probably impossible to interfere with old ashpits to any useful extent, but fresh ashpits are being erected daily, and it will be for your Board to consider what regulations will be desirable for the purpose of securing in the future the least possible contamination of the atmosphere.

"I am, Gentlemen,

"Yours respectfully,

"MICHAEL THOMAS SADLER, JUN., M.D.,

"Medical Officer of Health."

"Barnsley, Feb. 9th, 1869."